UF IFAS Extension UNIVERSITY of FLORIDA

FLORIDA MASTER GARDENER VOLUNTEER

Know, Sow, Grow Flagler County

UF/IFAS Extension Flagler County

The University of Florida is an Equal Employment Institution

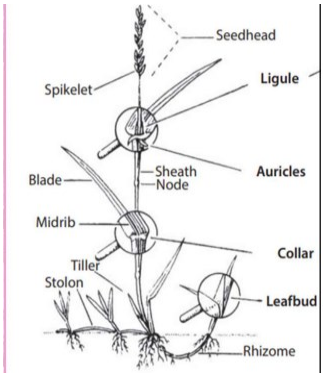
NAME THAT GRASS!

Judy Jean, UF IFAS Urban Horticulture Extension Agent, Flagler County

Growing up I would always watch my father take so much time to make sure his lawn was the best lawn in the neighborhood. He would work in the hot sun pulling weeds and replanting empty patches. I always wondered why he took so much care of his lawn. Now, as a horticulturist, I have a better understanding of the accomplishment of having a lawn that is the perfect shade of green with no weeds. Here at the UF/IFAS Extension Flagler County office, we get numerous lawn questions from individuals that want to have a "perfect" lawn. Keeping this in mind, I decided to equip the Master Gardeners here in Flagler County with additional information on how to identify different types of grasses. This is important because if you know what type of grass you have you can be able to pinpoint what issues may or may not arise. You may be wondering, how are you able to do that? Depending on the type of grass, there are several key characteristics based on plant structures that can be used to identify them such as the growth habit, vernation, ligule, and auricle. I'll give a brief description of each characteristic.

In layman's terms, growth habits describe the patterns of how grass spreads. Let's start at the stem. The stems of grass are short and compact and are commonly referred to as a crown which is the most important! From the crown comes leaves, secondary roots, and other stems. Grass that receive damage due to low mowing blades have difficulties growing new leaves. This is why each grass has recommended heights. There are three specialized stems that grow from nodes in the crown, stolons, tiller, and rhizomes. Stolons are stems that grow above ground that allow grass to spread in a horizontal direction. Grasses that have stolons include Bermudagrass, Zoysiagrass, Saint Augustinegrass, Centipedegrass, and Bahiagrass.

Rhizomes are stems that grow horizontally underneath the soil surface and produce new shoots. Some grasses like Bermudagrass actually have both stolons and rhizomes. As we move up the grass you will find the sheath. The sheath is the lower part of the leaf that wraps around or encloses the stem. From this point, there are several key defining structures or characteristics like the auricles, ligule, and vernation of the grass. Auricles describe the pair of tiny appendages between the leaf blade and sheath. They may either be long and claw-like, short and stubby, or completely absent. Warm season grasses, i.e., Bermudagrass, Zoysiagrass, Bahiagrass, St. Augustinegrass, and Centipedegrass have absent auricles. The ligule is a thin membranous projection or hair structure located on the inside of a leaf at the junction of the leaf blade and the sheath. This may be membranous, hairy, or absent. It is common that many weed grasses and most warm-season grasses have a hairy ligule. The last distinguishing characteristic is called vernation. Vernation is how the youngest leaf in the bud shoot is arranged, folded, or rolled.



Parts of a grass plant

Having a perfect lawn is within your reach! As always, feel free to stop by the extension office or email *mgardener@flaglercounty.gov* for any of your plant questions. As the old saying goes, the grass is green where you water it. So, make sure to do your due diligence when it comes to turfgrass choice and maintenance. Also, for additional educational materials on turfgrass go to *https://edis.ifas.ufl.edu*.

Inside this issue:

FLAGLER COUNTY FLORIDA

Oh Deer! They Are Eating My Plants!

Kathi Wright, Master Gardener Volunteer

Calls into the Extension Office from people annoyed by deer damage are increasing. In areas where developments have reduced the number of their food choices, deer become accustomed to feeding on gardens, ornamental plantings, groves, and nurseries. It can be frustrating because they are persistent. For a landscaping strategy, you can try:

- Harvesting crops as early as possible.
- Planting deer-favored plants as far from wooded areas as possible.
- Installing fencing.
- Using repellants in areas with low deer numbers. (Always follow label directions.)

An easier solution may be to choose plants that are less preferred by deer. While it would be great if we could give you specific "Plant This Not That" advice, it is difficult. Deer preferences vary depending on the availability and attractiveness of the food. When an area is cleared for development, deer are under pressure and may eat almost anything. Here are some of their least favorites based on taste and digestibility:

Trees
Bottlebrush, Sabal spp., crape myrtle, edible fig, loquat, live oak, magnolia, orchid tree, pineapple guava, pomegranate, queen palm, and yaupon.

Shrubs
Banana shrub, bird of paradise, bottlebrush, camellia, Carissa, Chinese holly, croton, gardenia, ixora, Japanese boxwood, juniper, lantana, mahonia, myrtle-leaf holly, oleander, philodendron, plumbago, sweet/tea olive, viburnum, and wax myrtle.

Annuals, perennials, and bulbs
Aloe, angels trumpet, bush daisy, century plant, cone flower, crown of thorns, ginger lily, lily of the Nile (agapanthus), lupine, marigolds, peace lily, periwinkle, petunia, sage, Shasta daisy, Turk's cap, verbena, and yucca.

Here are additional resources:

Detailed deer landscaping article: *https://edis.ifas.ufl.edu/pdf/UW/UW12800.pdf*.

Comprehensive plant list: *http://ufdcimages.uflib.ufl.edu/IR/00/00/37/49/00001/UW13700.pdf*.

Physical deterrents article: *https://edis.ifas.ufl.edu/pdf/UW/UW37100.pdf*.

Wildflowers susceptible to deer damage: *https://edis.ifas.ufl.edu/pdf/UW/UW360/UW360-6900668.pdf*

Florida Native Pitcherplants

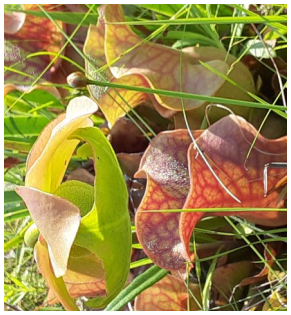
Sharon Smith, Master Gardener Volunteer

There are six varieties of pitcherplants native to Florida. Pitcher plants are carnivorous perennials with modified pitcher-like leaves that grow in boggy areas where the soil is nutrient-poor. To get their necessary nitrogen intake, they excrete a deceptive fragrant waxy substance that allures insects. Once the insect lands, it slides into the pitcher. The insects are unable to crawl out because of the downward pointed hairs inside, creating a trap! This allows them to be digested by the secreted enzymes and fluids made by the pitcherplant.

S. flava, photo credit: S. Smith

The largest areas of native pitcherplants in Florida are in the Panhandle, in the western portion, and in the Apalachicola National Forest (ANF). There are tour guides to help you find them and garden club trips. In my experience when I was unable to coordinate with either, my friend and I packed our hats, bug spray, and waterproof boots and hit the road. The ANF had no main gate, entrance fee, forest ranger, or map to guide you. It was just one thousand square miles of forest. There are also many unpaved roads that lack names, and no cell reception. But we were able to find pitcherplants which can be seen in this article. However, we did not take any plants home with us.

All six native pitcherplants can be found in the ANF. They are all in the genus *Sarracenia*. The varieties are *S. flava*, *S. leucophylla*, *S. minor*, *S. psittacia*, *S. purpurea*, and *S. rubra*. We found five out of six. The most obvious and plentiful was *S. flava*. It is the tallest, grows in large groups, and the bright yellow-green color glows in the sunlight. We were able to find see flowers of several varieties because it was spring. The other types of pitcherplants are smaller and less obvious. In fact, the smallest one is the *S. rubra* which is only found on Florida's Gulf Coast. It is so tiny that we were standing on it and did not realize it for several minutes. The pitcher plants are all protected species because of their shrinking habitat.



S. ruba, photo credit: S. Smith

After our trip, my friend and I were hoping to find them at our local nurseries but that did not happen. Overall, I would make this trip again if I could coordinate with a guide or garden club. These plants are fascinating, and I would like to learn more.

For more information go to: *https://edis.ifas.ufl.edu/pdf/UW/UW378/UW378-4628221.pdf*

Fall Gardening Checklist

Lori Powell, Master Gardener Volunteer

- Lawns should be fertilized for the last time until next Spring in early October. Avoid using "Weed & Feed" products.
- Put down fresh mulch. Mulch can help prevent frost damage to plants and also helps prevent weeds.
- Clean and sharpen garden tools.
- Plant or transplant trees, shrubs, and perennials.
- Have your soil tested.
- Daylight savings time ends on November 6. This means it's time to change your irrigation to a once a week watering schedule.

Soil pH is Important for a Healthy Landscape

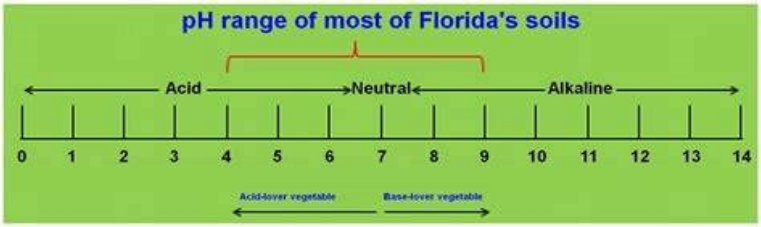
Mary Ellen Setting, Master Gardener Volunteer

Informed gardeners know that landscapes with plants placed in areas that match their ideal growing conditions require less maintenance, water, fertilizer, and pesticide needs. The opposite occurs in landscapes with plants growing in the wrong location. Besides considering factors like soil type, sunlight exposure and water conditions of the site when selecting a plant, you should also know the soil pH. Soil pH can make a huge impact on the success of your gardens because it affects the growth and quality of landscape plants.

Soil pH is a measure, on a scale from 1-14, of the acidity or alkalinity of the soil. A value of 7 is neutral, a value less than 7 is acidic, and a value greater than 7 is alkaline. The median soil pH for Florida soils is 6.1 (slightly acidic). However, Florida soils also vary widely in pH, depending on the "parent material" from which the soil was formed or managed. Soils in pine woods are more acidic while soils formed along the coast containing calcium-rich materials like seashells are more alkaline. Building materials in the home landscape, like concrete and stucco, may also create alkaline conditions. The health of your landscape plants can be affected by the soil pH because it controls how much of the nutrients in the soil are made available to the plant and affects how well beneficial bacteria breakdown plant residues in the soil. In acidic soils, the availability of nutrients like potassium (K), calcium (Ca), and magnesium (Mg) is reduced. In alkaline soils, iron (Fe), manganese (Mn), zinc (Zn) and boron (B) are usually deficient. To find out the pH level of your soil, bring a sample to the UF/IFAS Flagler County Extension Office for free testing. Divide the landscape into sections and test areas separately. Collect a sample using a hand trowel and take a small scoop of soil from 10 to 15 different spots within one area. Take soil from the top 2 to 4" for lawns and the top 6" for vegetables, fruit, trees, and shrubs. Mix the samples together and remove any plant debris or mulch. Dry the sample out and then put about two cups of dry soil in a paper or plastic bag. Keep problem area samples separate from the regular samples.

Test results with recommendations will be sent to you via email. More detailed testing for a fee is available by mailing samples to the UF/IFAS soil testing lab in Gainesville. For instructions for mailing your sample go to *http://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf*. You should test your soil every 2-3 years.

Plant nutrients are most available in the pH range of 5.5 to 6.5. However, a few acid-loving plants like azaleas, camellias,



and gardenias will not do well in soils with a pH greater than 5.5. For information about the soil pH tolerance of many Florida landscape plants, use the Florida Friendly Plant Selection Guide, *FYN_Plant_Selection_Guide_2015.pdf (ufl.edu)*. For additional information, visit *Why soil pH matters - UF/IFAS Extension Duval County (ufl.edu); and Gardening Solutions - University of Florida, Institute of Food and Agricultural Sciences (ufl.edu)*.

The Hazards of Home-Made Pesticides

Lori Powell, Master Gardener Volunteer

The internet is full of remedies for making pesticides from common house-hold products that boast that they are a natural or organic method for pest control. Are these really safe?

Credit: B. Bultemeier, UF/IFAS

Some remedies use ingredients like vinegar, dish soap, and salt. There are many types of vinegar and many assorted brands of dish soap. Vinegar contains acetic acid. Vinegar is an irritant and at higher acetic acid concentrations can burn your skin on contact and your lungs if inhaled. Any over spray will also kill beneficial insects. Vinegar is also hazardous to wildlife such as earth worms, frogs, and lizards. It will only kill the part of the weed at ground surface and not the roots. The weeds will come back. Applying vinegar to soil to kill weeds can also change the pH of the soil. Dish soap is a detergent, not a soap. Most dish soaps contain degreasers. Dish soaps are made from chemicals, they are not natural, they are synthetic. Dish soap should not be used as an insecticide and sprayed on plants as it can remove the protect coating on the plant leaves that will eventually harm the plant. Adding salt to soil can kill plants and it will remain in the soil for some time.

Commercially available pesticides have a label with instructions for use of the product including safety precautions. Do you understand the hazards of the mixture that you created from directions you found on the internet? Just because it is in your pantry doesn't mean it belongs in your garden! For more information go to*: Soaps, Detergents, and Pest Management - Gardening Solutions - University of Florida, Institute of Food and Agricultural Sciences, (ufl.edu and Home Remedies for Pest Control - Beware! - UF/IFAS Extension Orange County (ufl.edu)*.

Status of the Demonstration Gardens at the Extension Office

The demonstration gardens at the UF/IFAS Flagler Extension Office have sustained some damage due to the COVID shut down, the very cold weather we had last winter, and some flooding that occurred during some recent heavy rains. Master Gardener volunteers under the guidance of the new Urban Horticulture Extension Agent, Judy Jean are working hard to get the gardens back in shape for the public to visit.

L. Powell (Master Gardener Volunteer), harvests Okra from one of the raised beds demonstration garden

Enhance Your Habitat for the Greater Good

Claudia Lappin, Master Gardener Volunteer

In my article in the Spring newsletter, I discussed planning to build out your property to be more Florida-Friendly and less of a 'builder's grade' property. As I noted, you can only control what happens in your yard as local residential development becomes more intense and ongoing. Whether you have a residential lot stripped of vegetation or one that is already landscaped, you can plan your landscape to be environmentally aesthetic with less maintenance, less irrigation, and fewer pesticides. Perhaps you have taken the initiative to enlarge your garden beds and you planted a few trees and shrubs, maybe even a palm tree or two. Even better, you may have researched some native plants and trees and installed a few live oaks or a firebush hedge instead of the often-used Crape Myrtle or Ligustrum hedge. Congratulations! You are well on your way to establishing an environment that is bird-friendly, butterfly-friendly, and best of all, Florida-Friendly!

Did you know that oak leaves provide excellent mulch to reduce the weeds in your garden beds as well as a wonderful habitat for birds? Firebush is a perfect feeding station for butterflies and bees as well as a fast-growing lovely shrub.

As you explore ways to help the ecology of your yard, try to think from a broader perspective and know that your yard is part of a larger effort to help restore our natural and native world.

"If half of American lawns were replaced with native plants, we would create the equivalent of a 20-million-acre national park, nine times bigger than Yellowstone, or 100 times bigger than Shenandoah National Park…In the past, we have asked one thing of our gardens: that they be pretty. Now they must support life, sequester carbon, feed pollinators, and manage water."— DOUG TALLAMY

Professor Tallamy is the author of several ecological themed books and enjoys cajoling all of us into action. Check out his latest effort: *Homegrown National Park*. A few authors from the University of Florida press that you might also enjoy: Craig Huegel, Ginny Stibolt, and Stacey Matarazzo.

There are many resources through our local Flagler County Extension Office in Bunnell. Take in a soil sample, call, and ask a question, or go in to meet with our new horticultural agent, Judy Jean. In the end, though, we can only ask that you help us protect our environment through your practices affecting your yard. Some simple things you can integrate with your landscaping practices now as our summer winds down include (yes, I've said these things before):

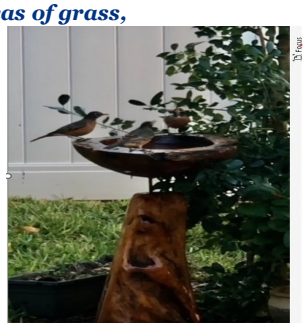
- Lessen your dependency on grass by enlarging your plant beds. Insert that landscaping plan with the increased planting area.
- Plant native. Try searching the Florida Association of Native Nurseries (*FANN*) for native nurseries and *IFAS* for native plant ideas.
- Attract wildlife: add a birdfeeder and birdbath and add a butterfly garden.
- Learn how to operate your irrigation system so you are not irrigating when it is raining. Just turning it off during a predicted rain and back on a day afterwards would be very helpful.
- Do not use pesticides, vinegar, dish soap or anything else on your flower bed. It is harmful to the butterflies and bees.

Finally, you can also contribute to the 'greater good' by playing a part in the establishment of wildlife corridors here in Florida. A wildlife corridor, habitat corridor, or green corridor is an area of habitat connecting wildlife populations separated by human activities or structures (such as roads or development). Florida is one of several states that has provided legislation and funding to help with establishing these corridors, of which a permanent conservation easement may be of primary interest to those of you who own property.

By creating landscaped islands and natural corridors of plants that connect bordering properties, animals can use these corridors to travel from one natural area to another. This in turn fosters greater biodiversity and protection for our animals and plants in areas under development stress. Future generations will thank you!

For more information visit: *Florida-Friendly Landscaping*™ Landscaping for Bee Pollinators and *CIR 1429/UW175: Landscaping Backyards for Wildlife: Top Ten Tips for Success (ufl.edu)*.

Enlarge planting beds to decrease areas of grass, credit: C. Lappin



Add a birdfeeder, credit: C. Lappin

From the Herb Garden Quarterly Featured Herb: Mint (Mentha)

Joy Hudson, Master Gardener Volunteer

Credit: UF/IFAS

There are numerous varieties of mints, with varying flavors that are self-explanatory based on their given names. A few of these, beginning with the better-known mints are, spearmint, peppermint, banana mint, apple, strawberry, ginger, chocolate, mojito, and margarita. Both mojito and margarita mints are linked to well-known cocktails of a similar name, as they serve as ingredients in these drinks. In this article, we will focus on spearmint and peppermint.

HOW TO IDENTIFY THESE TWO VARIETIES

Spearmint (*Mentha spicata*) has slightly lighter green leaves that are more spear-like in shape than the leaves of peppermint (*Mentha piperita*). On the other hand, peppermint distinguishes itself by having a darker, reddish-brown stem than that of spearmint, which is definitely green.

HOW TO GROW THESE MINTS

Both spearmint and peppermint will do best in rich, moist, well drained, slightly acidic soil, but being the aggressive growers that they are, will grow under less than desirable conditions. Like most mints, spearmint and peppermint are both perennials, and spread efficiently because of their underground runners. Container planting is highly recommended to prevent mints from taking over your entire garden. They do best in light to part shade here in the Florida sun. Frequent harvesting promotes more new growth and prevents plants from becoming weedy.

HOW TO HARVEST AND PRESERVE MINT

For best flavor, it is best to harvest leaves just as blooms begin to appear. Harvesting early in the day, but after the dew has dried, is also helpful in locking in the flavor of mint. Mint can be preserved by drying, freezing, and simply storing in water on a short- term basis. To dry mint, harvest leaves with the stem, place in small bundles and hang to dry upside down inside a brown paper bag. Once dry, remove leaves from stem and store in tightly sealed jars. To freeze, remove leaves from stems and either add to ice cube trays and cover with water, or spread leaves on a tray covered with parchment paper. Freeze, then transfer frozen cubes or loose leaves to freezer bags for storage. Preserving fresh mint on a short-term basis (7-10 days), simply requires that you harvest the leaves with the stem. Place in a jar or glass and add just enough water to cover no more than 2 inches of the stem. Avoid placing leaves in water as this will encourage bacteria to grow. Using an appropriate size plastic bag, create a loose tent over the bunch of harvested mint. Add fresh water to container as needed.

USES

Mints are very versatile and are widely used in the preparation of teas, jellies, deserts and in general meal preparations. It is safe to say, however, that mint is one of the most widely grown and used herbs, and that when most people think of mint, tea comes to mind.

For more information visit: *Mint - Gardening Solutions - University of Florida, Institute of Food and Agricultural Sciences (ufl.edu)* and *Mint | University of Maryland Extension (umd.edu)*.

Fall Planting Guide

Vegetables: Beets, broccoli, cabbage, carrots, cauliflower, celery, collards, eggplant, kale, kohlrabi, peppers, radishes, spinach, strawberries, Swiss chard, and tomatoes.

Herbs: Basil, chives, cilantro, dill, fennel, garlic, parsley, oregano, Mexican tarragon, rosemary, sage, and thyme.

Perennials/Annuals: Alyssum, Blue daze, Celosia, Chrysanthemums, Coleus, Dianthus, Gazania, Geraniums, Impatiens, Petunias, and Snap dragons.

UF/IFAS Extension provides a printable garden calendar: Florida Gardening Calendar - UF/IFAS Extension (ufl.edu).

Amazel Basil®

Lori Powell, Master Gardener Volunteer

Do you love basil but struggle to grow basil in your garden during Florida's hot and humid summers? You might want to try this cultivar of basil developed by the University of Florida and available from Proven Winners.

Amazel Basil®, credit: Proven Winners

Amazel Basil is the first Italian sweet basil that is resistant to downy mildew, a disease that often plagues basil. Since it's sterile, this large, vigorous plant produces a higher yield of usable, deliciously aromatic leaves. The more you harvest, the better it grows. This plant is also very heat tolerant. Even if it does produce some flowers later in the season, this will not affect the flavor.

Since this plant can grow up to 3 feet tall, it is best to grow it in the landscape but a large container will also work.

Harvest sprays of leaves by cutting stems just above 2 new sprouting lateral branches to get lush regrowth. You can find this amazing herb at local nurseries that carry herbs from Proven Winners. Get out those pesto recipes!

For more information go to: *Amazel Basil® - Sweet Italian Basil - Ocimum hybrid | Proven Winners*.

Pesto Recipe

Ingredients:

2 cups of basil leaves

2 cloves of garlic

1/2 cup of olive oil

2 tablespoons of pine nuts

1/2 cup parmesan cheese

salt & pepper to taste

Directions:

In a food processor combine basil, garlic, pine nuts, salt and pepper and pulse until minced. Slowly pour the olive oil into processor until mixture is smooth. Finally, add the parmesan cheese and process. Makes 2 cups.

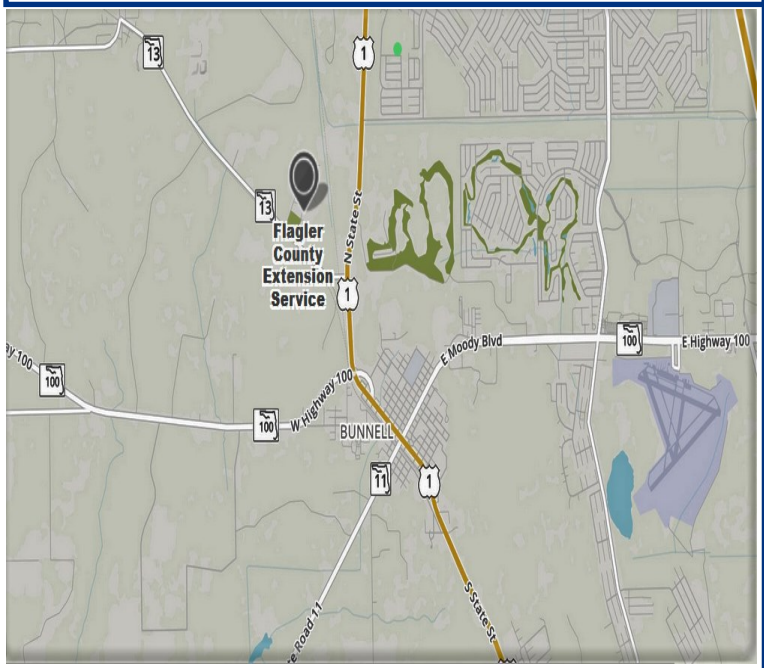
UF/IFAS Extension Flagler County Master Gardener Volunteers

Flagler County Extension Office
150 Sawgrass Rd
Bunnell, FL 32110

Phone: 386-437-7464
Fax: 386-586-2102
Email: mgardener@flaglercounty.gov

Our Mission
To assist Extension Agents in providing research-based horticultural education to Florida residents.

Our Vision
To be the most trusted resource for horticultural education in Florida.



On Going Events

Master Gardeners are available at the Flagler County Public Library the last Saturday of every month from 9:30 a.m. to 11:30 a.m. to answer your gardening and landscape questions.

Up Coming Events

City of Palm Coast Parks and Recreation Horticulture Workshop Series with the UF/IFAS Flagler County Extension Office.

September 30: Florida Gardening for New Residents

October 28: Edible Gardening

November 18: Companion Gardening

December 16: The Nine Principles of Florida Friendly Landscaping

All workshops will be held at the Palm Coast Community Center located at 305 Palm Coast Parkway from 10-11 a.m. Go to: *Activity Guide | City of Palm Coast, Florida (palmcoastgov.com)*

C. Lappin (Master Gardener Volunteer) assists Palm Coast resident Jacqui Rafalko at the Flagler County Public Library, credit: S. Smith

Stay Connected!

Flagler County Extension: ***http://flagler.ifas.ufl.edu***

University of Florida Solutions for Your Life: ***http://sfyl.ifas.ufl.edu***

Florida-Friendly Landscaping™: ***http://ffl.ifas.ufl.edu***

UF/IFAS Gardening Solutions: ***http://gardeningsolutions.ifas.ufl.edu/***

University of Florida Master Gardener: ***http://gardeningsolutions.ifas.ufl.edu/mastergardener***

Flagler County Horticulture Newsletters*:* ***http://sfyl.ifas.ufl.edu/flagler/lawn-and-garden/horticulture-newsletters/***

The Flagler County Master Gardener and Horticulture program is open to all regardless of gender, race, color, nationality, creed, or disability.